



**Final Report  
of the Aircraft Accident  
Investigation Bureau**

concerning the incident (Airprox)

between DLH3702 and D-ETJG

on 31<sup>st</sup> July 1999

Geneva Airport Terminal Control Area

# FINAL REPORT

## AIR TRAFFIC INCIDENT REPORT (ATIR)

### AIRPROX (NEAR COLLISION)

THIS REPORT HAS BEEN PREPARED FOR THE PURPOSE OF ACCIDENT/INCIDENT PREVENTION. THE LEGAL ASSESSMENT OF ACCIDENT/INCIDENT CAUSES AND CIRCUMSTANCES IS NO CONCERN OF THE INCIDENT INVESTIGATION

(ART. 24 OF THE AIR NAVIGATION LAW)

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<b>PLACE</b>	Terminal control area of Geneva airport
<b>DATE/TIME</b>	31 July 1999 / 12:20 UTC
<b>AIRCRAFT</b>	1: DLH3702, Airbus 319, Lufthansa, Frankfurt/Main - Geneva, 2: D-ETJG, Piper PA46, Annecy - Saarbrücken

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<b>ATC UNIT</b>	Approach Terminal and Arrival
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<b>CONTROLLER</b>	Terminal and Arrival
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<b>AIRSPACE</b>	C
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## HISTORY

On Saturday 31 July 1999 at 12:18 hours UTC, the aircraft D-ETJG was flying on visual flight rules (VFR) from Annecy to Saarbrücken. Without reporting to the control unit in Class C airspace of the terminal control area (TMA) of Geneva, it penetrated at an altitude of 6500 ft and climbed towards flight level 75. It was then in the region of Mont-Salève in the direction of Annemasse.

On first radio contact on the TMA frequency 119.52 MHz, the controller identified it by means of the transponder and immediately detected a conflict with opposite IFR traffic. This concerned the Lufthansa flight 3702, A319 from Frankfurt/Main to Geneva, with a right-hand down wind for Runway 05 in descent towards 6000 ft. The two aircraft received traffic information. The ARRIVAL radar controller initiated an avoiding action by instructing a 10° turn to the right to Lufthansa 3702. The Lufthansa 3702 pilot announced a TCAS alert. The two aircraft were in visual contact at the time of the crossing which took place at a distance of 1.9 NM and an altitude difference of 100 ft.

## FINDINGS

- The runway in use at Geneva was Runway 05.
- The aircraft D-ETJG penetrated the terminal control area of Geneva at an altitude of 6500 ft and climbed to flight level 75, to the south of Mont-Salève, without either radio or transponder contact.
- On initial radio contact on the frequency of 119.52 MHz, the TMA controller assigned to him the transponder code 4526.
- 46 seconds later, the D-ETJG aircraft was identified by means of the transponder and the TMA controller informed him of the opposite traffic: Lufthansa 3702 at 2 NM at an altitude of 7000 ft.
- The two aircraft were not on the same frequency.
- The TMA controller reported to D-ETJG that he was in the C airspace without authorisation.
- The ARRIVAL controller informed Lufthansa 3702 on a frequency of 131.32 MHz of the opposite traffic and 5 seconds after the identification of D-ETJG, initiated an avoiding action by instructing it to make a 10° turn to the right.
- Lufthansa 3702 announced a TCAS alert.
- The TMA controller instructed D-ETJG to descend to 3000 ft and to turn to the right to cap sud.
- The two aircraft were in visual contact.
- The minimum separation between the two aircraft was a distance of 1.9 NM and an altitude of 100 ft.
- The incident took place in the region of Petit-Salève near Annemasse, in the TMA of Geneva and south-east of the airport.
- The TMA at the location of the incident is Class C airspace, from 3500 ft to flight level (FL) 195, and subject to authorisation.
- The TMA controller informed the pilot of D-ETJG that he was making an internal operational report because of the too close crossing between IFR traffic and due to penetration without authorisation into the Class C airspace.

- The pilots have not been interviewed by the investigator. The analysis of the incident is based on the radar traces and the transcription of the recordings of the radio communications traffic between the pilots and the air traffic control units.
- Geneva meteorological bulletin at 12:20 UTC: wind 100°/ 3 knots; visibility 10 km; clouds: little at 5000 ft, fragmented at 18000 ft; QNH 1014.

## **ANALYSIS**

The D-ETJG aircraft approached the down wind axis 05, flying according to visual flight rules (VFR), without having received authorisation to penetrate in the region of the terminal control area. The meteorological conditions were good with a visibility of 10 km.

It has not been possible to establish whether the aircraft was in radio contact with another air traffic control unit at the time of its penetration into the Geneva TMA and, if this is the case, at what moment it had been instructed to communicate on the TMA frequency of 119.52 MHz. The pilot of the D-ETJG may perhaps have already left the last allocated control frequency. He did not accurately determine the limits of the Geneva TMA in relation to his effective position.

The aircraft was very rapidly identified by the TMA controller and the reaction concerning the avoiding action by the ARRIVAL controller was immediate. Avoiding action had also to be undertaken by the TMA controller who ordered D-ETJG to undertake a turn to the right to heading south and to descend to 3000 ft. Nevertheless, the aircraft crossed at a distance of 1.9 NM with an altitude difference of 100 ft.

## **CAUSE**

The incident is due to the aircraft D-ETJG entering the Class C airspace without authorisation.

**TRANSCRIPT OF TELEPHONY  
OR RADIOTELEPHONY COMMUNICATIONS TAPE-RECORDING**

Investigation into the **incident** that occurred on **July 31<sup>st</sup> 1999**

- Subject of transcript:	<b>DETJG / DLH3702</b>
- Centre concerned:	Geneva
- Designation of units:	TMA / ARR
- Frequencies:	119.52 / 131.32 MHz
- Date and period covered by attached extract:	July 31 <sup>st</sup> 1999 12:15 – 12:29 UTC
- Date of transcript:	August 19 <sup>th</sup> 1999
- Name of official in charge of transcription service:	Monica Simonet

- Certificate by official in charge of Analysis Department:

I hereby certify:

- That the accompanying transcript of the telephony or radiotelephony communication tape-recording, retained at the present time in the premises of Analysis Department, has been made under my supervision.
- That it was examined and checked by me.
- That no changes have been made to the entries in columns 2, 3 and 4, which contain only clearly understood indications in their original form.

Geneva, August 19<sup>th</sup> 1999

M. Simonet



## TRANSCRIPT SHEET

To <u>Col.1</u>	From <u>Col.2</u>	Hour <u>Col.3</u>	Communications <u>Col.4</u>	Observations <u>Col.5</u>
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**Frequency 119.52 MHz: Geneva Terminal, concerning DETJG only**

TMA	DJG	12:18:	27	Genève Terminal this is Delta Echo Tango Juliett Golf, good afternoon.	
DJG	TMA		32	Good afternoon, go ahead.	
TMA	DJG		34	Delta Juliett Golf is inbound Annemasse and airborne in Annecy, Lima Fox Lima Papa, and climbing up to flight level seven five and for VFR flight to Saarbrücken, Echo Delta Delta Romeo.	
DJG	TMA		48	Roger, squawk four five two six.	
TMA	DJG		50	Four five two six is coming.	
TMA	DJG	12:19:	13	Four five two six is on.	
DJG	TMA		14	What is you altitude ?	
TMA	DJG		17	Heu, heu flight level seven zero, climbing up to seven five now.	
DJG	TMA		21	Roger, you have no clearance to enter airspace Charlie, caution heu IFR traffic, heavy IFR traffic.	
TMA	DJG		29	Okay, I have..., a mode Charlie and..., heu four five two six is on.	
DJG	TMA		37	Yes Juliett Golf, no clearance at this altitude, caution opposite traffic two miles, seven thousand feet.	
TMA	DJG		43	Okay I down to six five, XXXXX do you like.	I understand: "when"
DJG	TMA		46	You have an opposite traffic at your eleven o'clock, two miles.	
TMA	DJG		50	Okay, looking out now.	
TMA	DJG		57	I have traffic in sight now.	
DJG	TMA		59	Juliett Golf descend now to three thousand feet, immediately.	
TMA	DJG	12:20:	02	Okay, immediately down to three thousand.	
DJG	TMA		30	Delta Juliett Golf turn right heading south please, VFR.	
TMA	DJG		36	VFR and down to three thousand feet now.	

Signature of  
person in charge:

TRANSCRIPT SHEET

<u>To</u> <u>Col.1</u>	<u>From</u> <u>Col.2</u>	<u>Hour</u> <u>Col.3</u>	<u>Communications</u> <u>Col.4</u>	<u>Observations</u> <u>Col.5</u>
DJG	TMA	12:20: 39	Yes, turn right heading south, VFR.	
TMA	DJG	41	Turning right now.	
				TMA in contact with another VFR traffic
DJG	TMA	12:21: 45	Delta Juliett Golf, altitude now ?	
TMA	DJG	49	Six, pa., altitude is six five down to three thousand.	
DJG	TMA	53	Roger, you may turn left to Cully.	
TMA	DJG	56	Turning left to Cully.	
				TMA in contact with another VFR traffic
DJG	TMA	12:23: 57	Delta Juliett Golf, Geneva ?	
TMA	DJG	12:24: 01	Go ahead.	
DJG	TMA	02	Yes, you know that you were in an airspace Charlie at your position ?	
TMA	DJG	06	Position is now heu inbound Cully and on the radial s., south heu, heu transit south Bravo.	
DJG	TMA	15	Yes, do you know the regulation about the airspace Charlie ?	
DJG	TMA	26	Delta Juliett Golf, are you <u>aware</u> of the airspace Charlie ?	
TMA	DJG	31	No, I have now five thousand and descending to three thousand. I'm <u>not</u> in the airspace Charlie.	
DJG	TMA	37	Are you aware that you were in the airspace before ?	
TMA	DJG	45	I'm inbound to the sea for going to inbound Cully.	
				TMA in contact with other VFR traffic
TMA	DJG	12:28: 46	Genève the Juliett Golf is overhead Evian and next is Cully, thereafter Lausanne.	
DJG	TMA	53	Yes roger, for information I have to file a, an internal, an operational internal report due to the close... proximity of another IFR traffic and no clearance to enter airspace Charlie before.	
TMA	DJG	12:29: 08	Okay.	

Signature of  
person in charge:



TRANSCRIPT SHEET

To	From	Hour	Communications	Observations
<u>Col.1</u>	<u>Col.2</u>	<u>Col.3</u>	<u>Col.4</u>	<u>Col.5</u>

**Frequency 131.32 MHz: Geneva Arrivals, concerning DLH3702 only**

ARR	3702	12:15:	04	Geneva Arrivals bonjour, Lufthansa ... three seven zero two information Bravo, descending one six zero.	
3702	ARR		11	Lufthansa three seven zero two bonjour, continue Golf Golf five zero two, descend to flight level one three zero.	
ARR	3702		17	Okay continue Golf Golf five zero two descend to flight level one three zero, Lufthansa three seven zero two.	ARR in contact with another inbound traffic
3702	ARR	12:16:	15	Lufthansa three seven zero two descend to flight level one zero zero.	
ARR	3702		18	Heu three zero seven two understand to flight level one hundred. Is speed limit active or may we reduce high speed. May we maintain high speed ?	
3702	ARR		25	You may keep high speed.	
ARR	3702		27	High speed, thank you.	ARR in contact with another inbound traffic
3702	ARR	12:17:	15	Lufthansa three seven zero two continue descent to seven thousand feet, one zero one four.	
ARR	3702		20	Heu please say again the altitude ?	
3702	ARR		21	Seven thousand feet, one zero one four.	
ARR	3702		24	Cleared seven thousand, one zero one four, Lufthansa three zero seven two, correction three seven zero two.	ARR in contact with other inbound traffic
3702	ARR	12:18:	25	Lufthansa three seven zero two report ready for visual approach for runway zero five, you're number two.	
ARR	3702		30	Yea, we are ready.	
3702	ARR		32	Roger, descend six thousand feet and stand by for turn, I call you back.	
ARR	3702		37	Okay, we continue descent to six thousand and initially maintain heading, and you call me back.	

Signature of  
person in charge:





TRANSCRIPT SHEET

To Col.1	From Col.2	Hour Col.3	Communications Col.4	Observations Col.5
3702	ARR	12:18: 43	Correct.	ARR in contact with other inbound traffic
3702	ARR	12:19: 25	Lufthansa three seven zero two turn right heading two four zero due to unknown VFR traffic at your ten o'clock position, five miles.	
ARR	3702	33	Do we have a.., no contact, we're turning right, we have a TCAS warning as well.	
3702	ARR	38	Yes, right heading two four zero, it will pass about three miles on your left.	
ARR	3702	43	Roger.	ARR in contact with another inbound traffic
3702	ARR	12:20: 01	And Lufthansa three seven zero two, you're passing just abeam the traffic..., two and a half miles now.	
ARR	3702	08	Yea, we have it in sight, same altitude, a little bit above now.	
3702	ARR	11	Yes, thank you, just heu, he, he called us about twenty seconds ago.	
ARR	3702	16	Roger.	ARR in contact with other inbound traffic
3702	ARR	12:21: 04	Lufthansa three seven zero two cleared visual approach runway zero five via Passeiry, preceding is just abeam, three o'clock position, Airbus 320 on the ILS.	
ARR	3702	12	Three seven zero two we have the Airbus in sight and cleared visual approach zero five, via Passeiry.	ARR in contact with other inbound traffic

**Abbreviations**

TMA - Geneva Terminal  
ARR - Geneva Arrivals

DJG - DETJG  
3702 - Lufthansa 3702

PA46  
A319

VFR flight  
IFR flight

LFLP - EDDR  
EDDF - LSGG

Signature of  
person in charge:



